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DESCRIPTION OF SOME NEW SPECIES OF *CYRTOSOMA*
(TENEBRIONIDAE, HETER.) FROM VENEZUELA
(SOUTH AMERICA)

I have had the opportunity to examine huge series of Tenebrionids coming from Venezuela, very accurately labelled, belonging to the Museum de Ciencias Naturales, La Salle, directed by my friend Hermano Ginés, and from a private collection belonging to Ing. Carlo Bordon, Maracay. I am very much indebted to both of them for the kindness they shew me in several occasions. In this note I describe the new species of *Cyrtosoma* I have found in these two collections. The graphic part of the work is due to Mr. Renzo Mazzaro, technician in the Department of Biology of Padua University, to whom I am also very grateful.

***Cyrtosoma caicarae* n. sp.**

Middle size (11 mm), oval, rather elongate; elitrae with almost parallel sides, not very convex; black with exception for labrum, maxillary palpi and first two antennal joints, yellow-reddish, very shining. Head transverse, clypeus very feebly emarginate, almost rectilineal, post-clypeal sutura not deeply incised; eyes large; all upper surface closely and rather finely punctured; antennae from VI joint dilated in a club, XI joint longer than wide. Pronotum transverse, not very convex, anteriorly as wide as posteriorly, anterior margin rectilineal, base convex towards the elytrae, margined with exception for the middle of the apex. Hind angles obtuse, anterior angles rounded but very prominent, sides with two angulosities of the same extension (fig. 1), shining with a punctuation evident at the sides but extremely obsolete on the disc. Scutellum triangular with somewhat rounded sides, smooth

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and shining. Elytrae not much wider than pronotum; sides almost parallel, gently narrowed towards the apex, with normally incised striae; intervals smooth, shining, almost flat, scarcely convex towards the sides. II and III intervals red at the base and towards the apex, V and VII red only towards the apex, the portion near the base almost completely red. In this character the new species is similar to *C. rubrivitta* Geb. (Paraguay) from which it can be easily distinguished through the finer punctuation of head and pronotum. Legs shining, tibiae clothed on flexorial surface and towards the apex with a golden recumbent pubescence, tarsi furnished with a thick and short pubescence beneath the first articles, less thick and longer beneath the last article. Ventral part shining, black, glabrous, only coxae ferrugineous. Gula rather closely but minutely punctured, only the median part furnished with very peculiar transverse striolae. Prosternum punctured, the reflected part of pronotum very wide, only with extremely scattered punctuation. Intercostal process of prosternum very small, narrow, scarcely produced posteriorly. Mesosternum very short; metasternum normally developed, intercostal process transformed in a very peculiar plate, transverse, trapezoidal, almost separate from the rest of surface of metasternum as I never observed in a *Cyrtosoma* species. Metasternum shining, on the middle almost smooth, towards the sides distinctly punctured. I urosternum prolonged in a large, rounded, process, shining, with a minute rather scattered punctuation, medially tending to form some transverse striolae. All remaining urosterna shining, with a similar punctuation. Legs ventrally punctured, the punctuation tending to be somewhat asperate.

Locus classicus: 150 km south of Caicara, on Rio Suapure, E.do Bolivar, leg. Bordon 3-10.IV.1977 1 ex. (holotypus) in coll. Bordon.

***Cyrtosoma chichirivichensis* n. sp.**

Rather small (6,5 mm), black, only elytrae with a metallic tinge; rather elongate, not very convex. Head very large, almost rounded, clypeus anteriorly truncate, concealing the labrum (as in genus *Xenius*). Clypeal sutura evident, genae well developed, eyes (which do not emerge relatively to genae) rather small and rounded; all upper surface smooth, rather dull. Antennae slender with an evident club formed by VI-XI articles of which VI-VII triangular, VIII transverse, IX-X distinctly wider than long, XI very large (for the presence of a club the new species cannot be attributed to *Xenius*, but to *Cyrtosoma*). Pronotum

very characteristic and very similar to that described by GEBIEN for *Xenius occallescentis* (known also from Venezuela), long nearly $2/3$ of width (in *X. occallescentis* half the width) very prominent anteriorly, sides regularly sinuate from apex, very prominent and rather acute at base, where the hind angles are rectangular (fig. 2). Apex regularly and deeply sinuate, base only a little projected medially towards the elytrae. Near the apex two deep impressions are visible. Pronotum margined with exception for the median part of apex and of base. Surface smooth, a fine, sparse punctation is present only at the sides near the base and in the centre of the disc, which shows a minute depression. Elytrae mediocrisly convex as in most species of *Cyrtosoma*, not much wider than pronotum; obovate, widest in the apical $2/3$, then gently narrowed up to apex. Surface greenish bronzed, only first interval purplish bronzed. Striae represented by a row of longitudinal punctures; these are gradually larger and deeper towards the sides, where a row of very coarse, variolose punctures are visible, highly characteristic. Legs rather thick, especially the femurs, tibiae distinctly bent, differently from *Xenius* (here included *X. occallescentis*, which shows tibiae slightly bent « leicht gekrümmt », GEBIEN, p. 202). Tarsi rather thick and short. Intercoxal process of prosternum long, ovate, with almost parallel sides, medially elevated posteriorly, pointed, in profile obliquely truncate. Mesosternum short with a wide median incisure to receive the prosternal process, smooth and shining anteriorly. Metasternum rather long, arcuate between the mesosternal coxae, distant more than in the other species. I urosternum prolonged in a long intercoxal process rounded at the top, narrower than the intercoxal process of metasternum. Urosterna shining, furnished with a very scattered, rather minute, punctation; metacoxae preceded cranially by a long and deep transverse groove as in no other species of *Cyrtosoma*. Femurs dilated towards the distal $2/3$, then brusquely narrowed towards the apex. Hind femurs exhibit a short tooth at the distal $2/3$, what is an unusual feature in gen. *Cyrtosoma*.

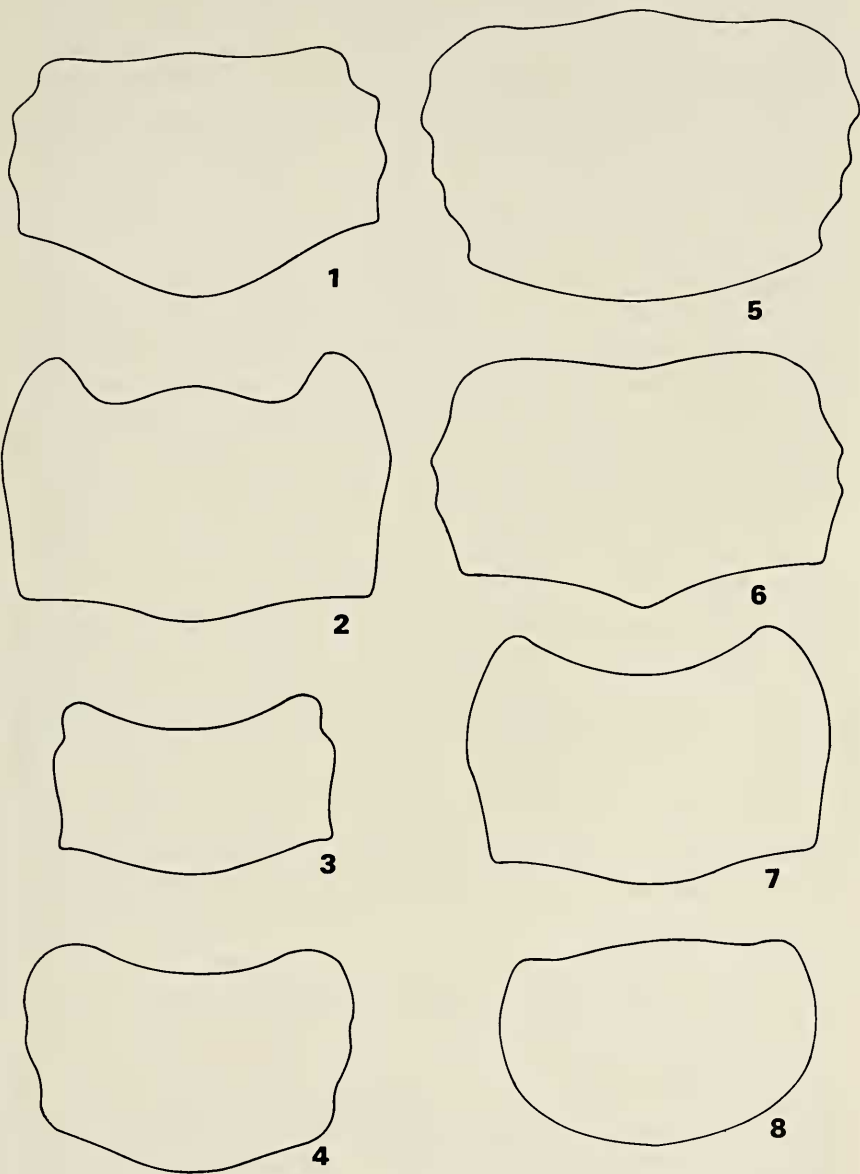
Locus classicus: Chichiriviche, D.F. west of Maiquetia, leg. Bordon 6.VI.1975, 1 ex. (holotypus, in Bordon coll.); El Limón, D.F., m 700, 31.VII.1978, 1 ex. leg. Bordon (personal collection).

The form of the head and more particularly of clypeus much developed to conceal labrum would point to a species of genus *Xenius*. Also the shape of pronotum recalls some species of this genus such as *X. occallescentis*, but the presence of a distinct antennal club and the

shape of the convex elytrae advise to attribute the new species to genus *Cyrtosoma*. Alternatively it could belong to a new genus, which I do not consider as opportune to describe. The rather obscure systematic position of *Xenius* could be deduced from the fact that CHAMPION who described it put it not in Cnodalonides but in Boletophagides, and FAIRMAIRE has attributed one species (*impressipenne*) to gen. *Cyrtosoma*.

***Cyrtosoma bolivarensis* n. sp.**

Middle size (9,5 mm), shining, black, with exception for clypeus, first 5 antennal joints, mouth parts and legs, reddish ferrugineous; only maxillary palpi darker. Normally convex. Head very transverse, genae short, eyes distinctly prominent relatively to genae; clypeus truncate, clypeal suture well incised; all upper surface minutely but rather closely punctured, antennae short, with a club formed by VI-XI joints, VI and VII triangular and short, VIII-X transverse, close one to another, X and XI strongly transverse. Pronotum very transverse, more than in all other known species (fig. 3); apex practically as wide as the base, sides almost parallel, straight, gently sinuate before hind angles, which are acute, very strongly sinuate before anterior angles which are broadly rounded. Apex emarginate, base slightly prolonged medially, sinuate at the sides. Punctuation rather scarce and rather minute. Scutellum triangular, smooth and shining. Elytrae ovate, with almost parallel sides, gently narrowed towards the apex; striae well incised, especially towards apex and sides, with a very minute sparse punctuation, intervals smooth, shining specular, rather flat anteriorly and near the suture, gradually convex posteriorly and laterally. Second stria united near the apex to seventh, third united before the apex to sixth; fourth and fifth jointed much before the apex. Legs normally developed, tibiae straight. Tarsi on ventral surface clothed with a pale pubescence, rather dense and short on the first joints, longer and sparser on the last one. Ventral surface bicolor: blackish, with intercoxal process of prosternum, mesosternum, hind part of metasternum and coxae reddish ferrugineous; shining, smooth. Intercoxal process of prosternum narrow lanceolate, pointed, the point abruptly truncate. Mesosternum short. Metasternum long, medially prolonged between the mesocoxae in a rather wide, slightly rounded point, smooth and shining. Process of I urosternum long, with the point less rounded than that of metasternum.



Outline pronotum of: 1. *Cyrtosoma caicarae*; 2. *C. chichirivichensis*; 3. *C. bolivarensis*; 4. *C. pilosa*; 5. *C. bordoni*; 6. *C. ramirezi*; 7. *C. tachirensis*; 8. *C. germelii*.

num. All urosterna shining, with minute longitudinal wrinkles in the middle, turning in a rather close and coarse punctation on sides. The last two urosterna shining, specular and smooth. Legs glabrous, only ventral surface of tarsi clothed with a very thick, short, dark pubescence.

Locus classicus: El Paují, m 1100, 100 km west of S.ta Helena, E.do Bolivar, 5.IV.1980, leg. Bordon, 1 ex. (holotypus).

***Cyrtosoma pilosa* n. sp.**

Rather large (10 mm), convex, black, shining; elytrae with a metallic lustre. Dorsal surface of head and pronotum and legs furnished with a highly characteristic yellowish pubescence, present only in another species of *Cyrtosoma* coming from Venezuela, *C. pilosissima*, what is a very unusual feature in this genus. Head rather large, transverse, genae very prominent, reaching anteriorly the clypeus, so that the margin of the latter, truncate, is continuous with that of the former. Eyes large, prominent relatively to genae, upper surface shining, smooth with exception of clypeus, characteristic for a rather strong punctation (setiferous points) and of some scattered setiferous points, absent on the disc. Labrum black, shining, furnished with setiferous points equal to those of clypeus. Antennae short, rather thick, with a club formed by VI-XI joints, very transverse and close one to another, XI a little longer than wide. Pronotum transverse, widest at the apex, sides regularly but slightly arcuate towards the apex, where anterior angles are very prominent and rounded. Two very small lobes are evident on each side, the posterior scarcely visible (fig. 4). Hind angles obtuse though evident; margin present all around the pronotum, excepted the median part of the apex. Surface shining, furnished with very characteristic setiferous points at the sides, on the base and near the anterior angles, so that, if examined in profile, a distinct fringe of yellowish, long, perfectly erect setae is visible, similar to those of the head. Elytrae not much wider than pronotum, regularly ovate, widest near the middle, narrowed gradually both apically and basally. Elytrae much more convex than pronotum. Striae deeply incised, basally tending to fusion before the base, namely I with II, III with IV; also apically the striae show a very remarkable confluence. Striae furnished with an extremely minute punctation; intervals smooth, specular, internal one almost flat, towards the sides gradually more convex. Legs rather short and thick, tibiae 2 and 3 very slightly bent, femurs and tibiae clothed with a yellowish

long pubescence of the same type of that of head and pronotum; tarsi covered beneath with a very short and dense, golden yellow pubescence, less dense and longer on the last joint. All ventral surface and legs clothed with a very long, whitish-golden pubescence, gula closely and coarsely punctured in the cranial part from one eye to the other. Prosternal process very narrow, lanceolate, pointed, in profile cut vertically. Mesosternum very short. Metasternum smooth, specular, shining in the middle, furnished at the sides with a strong though not close punctation. Intercoxal process regularly arcuate, broad. I urosternum prolonged cranially with a process very similar to that of metasternum, smooth and shining. All urosterna with exception of the process of I, shining, furnished with a sparse very strong punctation limited to the middle of the cranial part of each urosternum. Ventral surface of all tibiae and of middle and hind femurs distinctly punctured, the punctation of femurs stronger and sparser.

Locus classicus: Cerro El Café, m 1000, La Entrada, E.do Carabobo, 6.II.1971, 1 ex. leg. Bordon (holotypus).

Very similar to *C. pilosissima* n. spec. (in print) known from «Venezuela», British Museum, from which the new species can be distinguished because of pubescence limited to head, pronotum and legs; the punctation of head limited to clypeus; antennal club constituted by VI-XI joints (in *pilosissima* VIII-XI), pronotum widest at the apex (in *pilosissima* in the anterior 2/3) with sides furnished of two small lobes (in *pilosissima* with no trace of angulosity) and because of apex deeply emarginate, while in *pilosissima* it is truncate. In the new species the tibiae are slightly bent (in *pilosissima* straight). The pubescence present in these two Venezuelan species could be due to a phenomenon of convergence.

Cyrtosoma bordon i n. sp.

Large (15 mm) very broad and convex, head (here included the labrum) and pronotum black, dull, elytrae slightly metallic bronzy, similar to *C. kaszabi* Marcuzzi (1976). Head very transverse, rectangular, clypeus practically truncate, eyes distinctly emerging relatively to genae, laterally pointed. All upper surface smooth and dull; antennae rather slender, club formed by VII-XI articles, VII and VIII triangular, IX-X transverse, XI nearly as long as wide, rounded. Pronotum tra-

pezoidal, apex much wider than base, with rounded prominent anterior angles, sides dilated in two rather rounded lobes (fig. 5). Hind angles small but acute; apex truncate, base slightly prominent in the middle, sinuate towards the sides. Surface smooth and dull. Margin narrow, present on apex and base with exception of the median part, at the sides interrupted in correspondence of the two lobes. Elytrae much wider than pronotum, convex, almost rounded, shining, rounded at the humeri, sharply narrowed towards the extremity. Striae substituted by rows of very coarse, deep, punctures, larger towards the sides and posteriorly. Intervals perfectly smooth and specular. Posteriorly there is the confluence of various intervals, so to form wrinkles and very evident angulosities, visible also in dorsal vision. These confluent intervals exhibit a peculiar reddish-brown colour, unique in all the examined species. The new species is different from *C. kaszabi* because the punctures do not tend to confluence and the intervals are never carinated. Legs rather slender, tibiae straight, clothed on flexorial surface with a sparse, long, pubescence, a little more towards the apex; ventral surface of tarsi covered with a tuft of short, dense, hairs on the first articles, last joint clothed only with some rare and long hairs. Mentum very large, anteriorly with two points in the middle (where the hind part of labium seems to be inserted) then deeply sinuate at each side, shining, with a very scarce and minute punctation. Prosternum very narrow, delimited by the reflected parts of pronotum, wide and perfectly smooth, dull; it is shining, strongly punctate, with an intercoxal process well developed, pointed and not brusquely abrupt as in *C. kaszabi*. Meso- and metasternum narrow, shining, punctate, delimited by smooth, dull epimera and episterna. Metasternal process very developed, practically equal to the intercoxal process of I urosternum, a feature which seems exclusive of this species. The process of I urosternum is uprisen so to form a kind of continuous shield with the intercoxal process of metasternum, contiguous to the former. Urosterna shining, specular, with an extremely un conspicuous punctation.

Locus classicus: La Laguna, m 2200, Boconó, E.do Trujillo, N-W Venezuela, leg. Bordon, 24.V.1980, 1 ex. (holotypus).

Probably akin to *C. kaszabi* n. spec., and evolved in the same period of time when Andes arose and the different mountain separated one from another, possibly originated both from a common ancestor.

Cyrtosoma ramirezi n. sp.

Middle size (9 mm) black, shining (also ventrally), palpi, labrum and first 3-4 articles of antennae brownish-red. Elytrae highly characteristic because of a metallic lustre, the inner four intervals changing from red-violaceous to green, according to incidence of light, the outer intervals green only at the base, changing a little to cupreous. Head transverse, clypeus truncate, clypeal suture well visible; eyes large, emerging laterally relatively to genae; surface very minutely punctured; vertex inpunctate, shining wide. Antennae short, with a very distinct, wide, club formed by VI-XI articles, all strongly transverse, only the XI nearly as wide as long. Pronotum transverse, rather flattened, base scarcely wider than apex. This is truncate, base slightly produced posteriorly, and sinuate at the sides before hind angles, obtuse; anterior angles rounded. Sides regularly arcuate interrupted by two small angulosities (fig. 6). Pronotum narrowly margined, with exception for the median part of apex. Surface very shining, specular, with an extremely minute punctation (magnification of 10 x). Elytrae much wider than pronotum, ovate, widest near the hind $2/3$, then narrowed towards the apex. Striae well visible, deeper toward the sides, furnished with a row of extremely minute punctures; intervals smooth, specular, flattened on the disc, gradually more convex towards the sides. Striae I-V tending to confluence immediately beyond the base, III-IV and V-VI fused towards the apex, posteriorly all united much before the apex, as I have observed in no other species of the genus. VII stria fused with II. Epipleurae very wide on the cranial half, then gradually narrowed up to the extremity. Ventral surface black, shining, smooth; prosternal process very narrow, pointed, in profile prolonged in caudal sense, acute. Mesosternum short; metasternum rather long, perfectly smooth, specular. Intercoxal process shield-like, specular, similar to that of *C. caicarae* n. spec. Medially metasternum furnished with a narrow impression. I urosternum with an intercoxal process wide, rounded at the top, shining. All urosterna, with exception for the two last, shining, with an extremely minute punctation somewhat asperate, rather close, with a tendency to constitute scarcely visible striolae in the middle. Ventral surface of legs smooth and shining, ventral surface of tarsi covered with a thick, short, golden pubescence. Tibiae towards the extremity clothed with a golden rather recumbent pubescence, a little longer on the anterior ones.

Locus classicus: Carretera El Dorado-S.ta Helena, km 88, E.do Bolivar, m 100, 1 ex. leg. L.J. Joly and T.Y. Ramirez, 28.IX.1967 (holotypus in the collection of Museum La Salle, Caracas).

Cyrtosoma tachirensis n. sp.

Small (7,5 mm), narrow oval; black, elytrae very slightly metallic, shining. Antennae ferrugineous; legs dark brownish-red. Head normal, not very transverse, clypeus well developed, anteriorly truncate. Clypeal sutura visible though slightly incised. Eyes rather large, prominent relatively to genae; upper surface dull, practically smooth, only on clypeus a row of small punctures is present. Antennae slender, club formed only by VIII-XI joints, VIII triangular, IX-X trapezoidal, XI longer than wide, rounded at top. Pronotum with regularly arcuate sides, narrowed practically at the base as at the apex (fig. 7), very narrowly margined all around, with exception for median part of apex and of base. Apex truncate, base slightly bisinuate at sides; surface subnitidous, furnished with a very minute punctation present only in the middle. Elytrae not much wider than pronotum, normally convex, widest at the hind 2/3, shining. Striae evident, very finely punctured; intervals shining, smooth, flat near the sutura, gradually convex towards the sides. Legs slender, tibiae slightly bent, tarsi clothed with a rather dense and very long brownish pubescence, longer and scarcer in the distal part. Femurs and tibiae glabrous. Ventral surface smooth and shining; intercoxal process of prosternum long, with parallel sides, medially very slightly elevated, laterally slightly hollow, the top concealed between the two mesosternal coxae. Mesosternum very short, smooth. Metasternum long, almost as I urosternum, cranially produced in an ovate process somewhat similar to intercoxal process of I urosternum, smooth and specular. Urosterna smooth and shining, only with an extremely minute and sparse punctation in the middle. Legs glabrous, with exception for tarsi, furnished with a thick, short golden pubescence on ventral surface, only on tarsi mixed to some long, scattered setae.

Locus classicus: Pregonero, Tachira, near the border with Estado Mérida, m 2500, 1 ex. leg. Bordon, 2.XI.1978 (holotypus).

Cyrtosoma germelii n. sp.

Small (7 mm), extremely short and convex, rather dull, black with exception for the first 4 antennal joints and tarsi, ferrugineous, recalling

a little some short, plump species of European genus *Byrrhus*. The convexity almost equal of pronotum and elytrae recalls *Cyrtosoma gri-dellii* mihi, known from Colombia. Head transverse, clypeus truncate, eyes rather large, round, emerging a little relatively to genae, vertex concealed by pronotum, which partially include the head (as in *Byrrhus* and as in no other species of *Cyrtosoma* known to the author). This convexity is present only in the median part of the apex, whereas the sides are quite normal. All the upper surface of head is finely and closely punctured; antennae normally developed, with a club formed by VI-XI joints. Pronotum transverse and very convex both in perlatral and in cranio-caudal sense, especially in the latter. Base only slightly wider than apex. Sides regularly rounded and narrowed towards the apex (fig. 8). Surface very slightly shining, with an extremely minute and sparse punctation. Base as wide as that of the elytrae, so that these continue the shape and the convexity of pronotum, as in no other species of *Cyrtosoma*. Elytrae globose, only slightly longer than wide, widest at the middle, subnitidous; punctato-striate, punctures rather strong and separate one from another; intervals perfectly smooth and not sensibly convex. Legs rather short and thick, tibiae slightly enlarged towards the extremity, straight, clothed with a short golden pubescence on the flexorial surface. Epipleurae extremely wide up to hind $2/3$, then brusquely narrowing towards the apex. Ventral surface not very shining. Gula coarsely and very closely punctured. Thorax short as in no other species of *Cyrtosoma*. Prosternal process very small, narrow, posteriorly obliquous different from all other species, where it is straight, horizontal, pointed. Mesosternum very short. Metasternum very short (probably a wingless species) with an intercoxal process small, short and arcuate. I urosternum though shorter than II and III urosterna, prolonged in an intercoxal process rather large, broad and somewhat rounded. All urosterna smooth, only with some traces of a few wrinkles on II urosternum, laterally. All legs ventrally closely punctured, almost glabrous, only middle and hind tibiae clothed on flexorial surface with a very thick, golden pubescence on the distal $2/3$; this pubescence extends a little also on ventral surface at the apex.

Locus classicus: Sorte, Yaracuy, 29.III.1953, leg. Germeli, 1 ex. (holotypus, La Salle coll., Caracas).

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ABSTRACT

Description of new Neotropical species of *Cyrtosoma* (Coleoptera: Tenebrionidae) coming from Venezuela is given: *C. caicarae*, *C. chichirivichensis*, *C. bolivarensis*, *C. pilosa*, *C. bordoni*, *C. ramirezi*, *C. tachirensis* and *C. germelii*. With 8 figures.

RIASSUNTO

Sono descritte le seguenti otto nuove specie di Coleotteri Tenebrionidi provenienti dal Venezuela: *Cyrtosoma caicarae*, *C. chichirivichensis*, *C. bolivarensis*, *C. pilosa*, *C. bordoni*, *C. ramirezi*, *C. tachirensis* e *C. germelii*.
